

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CLC in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) CT-1, rhCNTF, rhIL-6, rhIL-11, rhLIF, or rhOSM is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 138815
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human CLC Leu28-Phe225 Accession # Q9UBD9
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Cardiotrophin-like cytokine (CLC) (also known as novel neurotrophin-1 (NNT-1) and B cell stimulating factor (BSF-3)) is a recently discovered 22-25 kDa member of the IL-6 family of cytokines (1, 2, 3). As such, it is expressed as a long type I cytokine with four α-helices in its structure (2). Human CLC is synthesized as a 225 amino acid precursor that contains a 27 aa signal sequence and a 198 aa mature region. It contains one potential N-linked glycosylation site that is apparently utilized, and two distinct binding sites for CNTFRα and CLF (4, 5). Although CLC has a signal sequence, it is not secreted unless noncovalently dimerized to either CLF or soluble CNTFRα (5, 6). Once dimerized, CLC signals through a tripartite receptor complex composed of gp130, LIFRβ and CNTFRα (membrane-bound) (5, 7). Within the IL-6 family, human CLC is most homologous to cardiotrophin-1, sharing approximately 29% amino acid sequence identity (8). Human to mouse, mature CLC is 96% aa identical. CLC is a trophic factor for motor neurons, a stimulator of ACTH release from corticotrophs, and an inducer of IgE synthesis and B cell proliferation (9, 10, 11). Cells known to express CLC include embryonic muscle, lung epithelium, and mesenchyme in various regions (12).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.